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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,548	06/21/2001	Matthew B. Dubin	H0002057	7279

7590 07/03/2002
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EXAMINER

CARIASO, ALAN B

ART UNIT PAPER NUMBER

2875

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/886,548

Applicant(s)

DUBIN ET AL.

Examiner

Alan Cariaso

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: Page 9, lines 8-9, the phrase "Input face 318 is oriented generally perpendicular to the aircraft's direction of flight" appears to be misdescriptive as illustrated in figure 3. It appears that the direction normal to the plane of the face 318 is that which is perpendicular to the aircraft's direction.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-25 and 28-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 1, 24, 25, 29 last line, the limitation "a lens through which emitted light passes" is indefinite because it is not clear as to where this lens is located with respect to any part of the invention. And it is not clear as to which intended lens is being claimed since the specification discloses two lenses (206, fig. 2 and diffuser 330, fig. 3). Similarly, the process claims 28, 37 and 38, last line, recites a process of "passing the emitted light through a lens" which is indefinite for the same reason above.

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5. Claim 9, line 1, "said light" is indefinite as directed to the emitted light or to the light source.
6. Claim 10, the phrase "the light sources comprising one or more combinations of colors", especially the "more combinations of colors" is indefinite as not being supported by the specification. Though it is disclosed that there certain colors used per position light, there is no mention of a combination of colors among the plural light sources in any one position light housing.
7. Claim 11, the phrase "said light sources comprise one or more combinations of angular distribution" is indefinite as lacking structure or means to support this function.
8. Claims 15-20, 24 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are between the (first) prism and the optical filter, the at least one diffuser, second prism, and the lens.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application

published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

10. Claims 1-3, 8-11, 16-19, 21, 22, 26-31 and 34 are rejected under 35

U.S.C. 102(b) as being anticipated by YAMADA et al (US 5,704,703).

11. In regards to apparatus claims 1-3, 8-11, 16-19, 21, 22, 26 and 27, YAMADA discloses a housing structure (10, fig.3 or 40, fig.7, space 35 enclosed by surfaces 33, 33a, 34, 36); at least one light source (1, fig.3 or 31, fig.7) arranged inside the housing structure (10, 40); a prism (2, fig.3 or 32, fig.7) having an input face (2a, fig.3 or 32a, fig.7), an output face (2c or 32c'), and a transfective face (32b, fig.7 or 2b, fig.3) to receive, distribute, and direct light (fig.3, col.6, lines 21-39) emitted by the light source (1, 31) which is external of the prism (2, 32); and a lens (32a, fig.7; col.9, lines 10-14) through which emitted light passes; wherein a first portion of the light emitted from the light source (51, fig.9A) undergoes total internal reflection (col.6, lines 22-38) at the transfective face (52b) of the prism (52) and a second portion of the light emitted from the light source (51) is transmitted through the transfective face, the combination of the first and second portions of light producing a light pattern (col.10, lines 16-32) with a sharp angular cutoff (fig.9B) broadly corresponding to the critical angle for t.i.r at the transfective face (52b); wherein means for aligning of the light source is inherent by the predetermined position of the light source (fig.3, 7); wherein the light source inherently emits visible light which includes any of green, red, and white light; wherein the light comprises a plurality of light sources (figs.14A-18); wherein the light sources comprise at least one visible color; as best understood, wherein the light sources (figs.14A-18)

comprise one or more combinations of angular distribution (col.13, lines 45-50); further comprising at least one diffuser (32a, fig. 7 or diffusion sheet-fig. 4B or transparent diffusion sheet 37-fig. 7); further comprising a second prism (figs. 14A-18) similar to and adjacent the first prism to further shape and direct light emitted by the light source(s); further including facets (32a-fig. 7) that are flat or curved (col. 9, lines 10-14) on the input face of any of the plural prisms.

12. In regards to process claims 28-31, 34, 39 and 40, since the apparatus claims along with intend function are met by YAMADA as describe above, then these claimed processes which correspond to the claimed structure are also anticipated.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over YAMADA et al (US 5,704,703).

15. Claims 12 and 13 recite the plural light sources being electrically connected in series and in series-parallel. It would have been obvious to one having ordinary skill in the art at the time of applicant's invention to modify the plural adjacent light sources and prism device of YAMADA to include connection of all the light sources in series or in series-parallel since it was known in the art that lighting devices that include plural load

or light sources are all connected to powered by a common power source of which the systematic connection is known to include plural loads connected in series and/or series/parallel for the purpose of feeding all the light sources of the common device or system from the one power source.

Allowable Subject Matter

16. Claims 24, 25, 37, 38 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

17. Claims 4-7, 14, 15, 20, 23, 32, 33, 35 and 36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. LARGE et al (US 4,367,514) show recessed lighting fixture inside an aircraft that includes a series of transfective optical components that direct light outside the optical elements to the exterior of the aircraft. PELAK et al (US 6,177,761) show plural solid state light sources with current control directing light at a prism portion which internally reflects light and extracts them by angular output surfaces. MOCHIZUKI et al (US 4,737,896) show a prism that is adjacent a lens and light source, the prism having facets on its reflective and output faces. LANG (US 4,714,983) shows a prism that includes diffusing elements on plural faces thereof and

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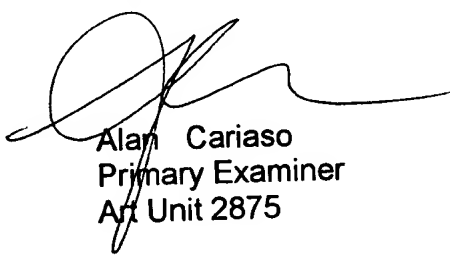
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the light sources being LEDs. SUGIMOTO (US 5,241,462) shows plural prisms adjacent each other receiving portions of light not reflected by the transfective surfaces of each prism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Cariaso whose telephone number is (703) 308-1952. The examiner can normally be reached on M-F (9:00-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (703) 305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Alan Cariaso
Primary Examiner
Art Unit 2875

AC
June 30, 2002